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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/997,472	11/29/2001	Pradeep Trivedi	03226/139001; P6826	6172
32615	7590	04/26/2004	EXAMINER	
OSHA & MAY L.L.P./SUN 1221 MCKINNEY, SUITE 2800 HOUSTON, TX 77010			NGUYEN, HAI L	
			ART UNIT	PAPER NUMBER
			2816	

DATE MAILED: 04/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/997,472	TRIVEDI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Hai L. Nguyen	2816	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,3-6,18,19 and 23-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-6,18,19 and 23-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 December 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. ____.  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____.   | 6) <input type="checkbox"/> Other: ____.                                    |

**DETAILED ACTION**

***Response to Amendment***

1. Applicant's amendments filed on 01/26/04 has been received and entered in the case. The prior art rejections to the claims made in the Office Action mailed on 11/07/03 are now withdrawn in view of Applicant's amendments. However, Applicant's amendment necessitated a new action on the merits as set forth below.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3-6, 18, 19, and 23-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiu (US 6,483,361; previously cited) in view Ahn et al. (US 6,496,554; previously cited).

With regard to claims 1 and 18, Chiu discloses Figs.2-3 a circuit, and a method of used thereof, comprising a phase locked loop (250) having a phase-frequency detector (400), wherein the phase frequency detector inputs a system clock (410) and a chip clock (420), and wherein the phase-frequency detector generates pulses on a first signal (430) and second signal (440) dependent on a relationship between the system clock and the chip clock; and a lock detect indicator (700) that uses the first and second signals to determine whether the phase locked loop is out of lock, wherein the lock detect indicator inputs the system clock. The circuit of Chiu

meets all of the claimed limitations except for the limitation that a lock detect indicator determines whether the phase locked loop is out of lock (711) dependent on whether a pulse on the first signal or the second signal is longer than a predetermined pulse width. However, it is well known in the art for circuit designers to use delay circuits connected to the up and down signals of the lock detect indicator so the up and down control signals must have a pulse width as least as long as the delay circuit to trigger an out-of-lock signal (disclosed in column 1, lines 37-58 of Ahn et al.; US Patent 6,496,554; previously cited). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to implement the delay circuits with the first and second signals of the lock detect indicator of the prior art in order to prevent the lock detect indicator from inadvertently triggered by a glitch.

With regard to claim 3, the lock detect indicator comprises circuitry that generates a first lock indication pulse (711) if a pulse on the first signal or second signal is longer than a predetermined pulse width (see the above discussion with regard to claims 1 and 18); circuitry (702) that generates a second lock indication pulse (731) dependent on the first lock indication pulse and a count value (715); and circuitry that uses the second lock indication pulse to dynamically generate a lock status signal (751), wherein the lock status signal is indicative of whether the phase locked loop is out of lock.

With regard to claim 4, the lock detect indicator further comprises circuitry (752) that outputs second lock status signal, wherein the lock status signal is indicative of whether the phase locked loop is out of lock.

With regard to claim 5, the lock detect indicator comprises circuitry (704) that outputs a past lock status signal (790), wherein the past lock status signal indicates whether the phase locked loop has been out of lock.

With regard to claim 6, the lock detect indicator comprises a reset circuitry (780) that resets the lock detect indicator dependent on a reset input signal (reset).

Claims 19 and 23-27 are similarly rejected. Note the above discussion with regard to claims 1, 3, 5, 6, and 18.

### *Conclusion*

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai L. Nguyen whose telephone number is 571-272-1747 and

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Art Unit: 2816

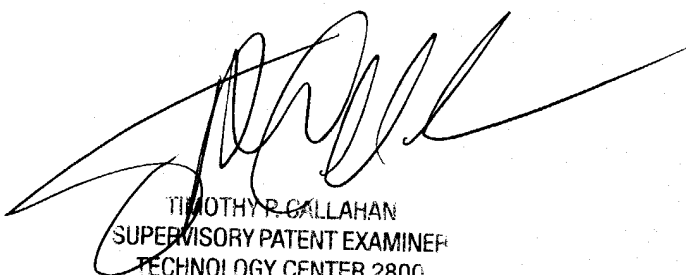
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Right Fax number is 571-273-1747. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on 571-272-1740. The fax phone numbers for the organization where this application or proceeding is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-1562.

HLN *HLN*  
April 12, 2004



TIMOTHY R. CALLAHAN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800